

CLAIM AMENDMENTS

10/511127
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Amend claims: 1-7 and add new claim 8.

1. (Currently Amended) A method of increasing ~~Method to increase~~ the cetane number of a gas oil product based on a petroleum derived gas oil to a target cetane number Y by comprising: adding to the petroleum derived gas oil a volume amount of a Fischer-Tropsch derived gas oil having a higher cetane number, B, than the petroleum derived gas oil of cetane number, A, wherein the volume amount of added Fischer-Tropsch derived gas oil is less than the volume amount which would be added if linear blending is assumed.

2. (Currently Amended) The method of ~~Method according to~~ claim 1, wherein the volume fraction of Fischer-Tropsch gas oil is less than x, wherein x is the volume fraction that would be added if linear blending assumptions would have been made according to the following equation:

$$Y = A + x(B-A),$$

3. (Currently Amended) The method ~~Method according to any one of claims 1 or 2,~~ wherein a volume fraction x is added as Fischer-Tropsch derived gas oil in order to increase the cetane number to target value Y, wherein Y and x are related according to the following equation:

$$Y = A + (B-A)(-px^2 + qx),$$

where p and q are constants such that $1.4 > q > 1.9$ and $p = q-1$ and wherein A is the cetane number of the petroleum derived gas oil and B the cetane number of the Fischer-Tropsch derived gas oil.

4. (Currently Amended) The method of ~~Method according to~~ claim 3, in which ~~wherein~~, x is greater than 0.02 and less than 0.7.

5. (Currently Amended) The method of ~~Method according to~~ claim 4, in which ~~wherein~~ x is less than 0.5.

6. (Currently Amended) The method ~~Method according to any one~~ of claims 1-5, of which ~~wherein~~ the cetane number, A, of the petroleum derived gas oil is greater than 40 and less than 70.

7. (Currently Amended) The method ~~Method according to any one~~ of claims 1-6, of which ~~wherein~~ the cetane number of the petroleum derived gas oil is measured ~~by making use of~~ using near infrared spectroscopy.

8. (New) The method of claim 2, in which a volume fraction x is added as Fischer-Tropsch derived gas oil in order to increase the cetane number to target value Y, wherein Y and x are related according to the following equation:

$$Y = A + (B - A)(-px^2 + qx),$$

where p and q are constants such that $1.4 > q > 1.9$ and $p = q - 1$ and wherein A is the cetane number of the petroleum derived gas oil and B the cetane number of the Fischer-Tropsch derived gas oil.